



Patient Name	: Ms. NEHA	Specimen Drawn ON	: 14/Jan/2026 10:00AM
Age/Gender	: 36 YRS /F	Specimen Received ON	: 14/Jan/2026 04:35PM
UHID/MR No	: ADEL.0003975894	Report Date	: 14/Jan/2026 05:21PM
Barcode No	: C6255867	Client Code	: DL1360
Ref Doctor	: Dr.MANGLA PRAVEEN	Visit ID	: MDEL3978898
Ref Customer	: SELF	Client Name	: AVERT LABORATORIES

### DEPARTMENT OF HAEMATOLOGY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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#### HbA1C

Sample Type : WHOLE BLOOD EDTA

HbA1c (ngsp)	5.4	%	Non diabetic adults >=18 years <5.7-At risk (Prediabetes) 5.7 - 6.4-Diagnosing Diabetes >= 6.5	HPLC
HbA1c (IFCC)	35.43	mmol/mol		HPLC
Estimated Average Glucose	108.3	mg/dl		Calculated

#### Interpretation:

##### As per American Diabetes Association (ADA)

Reference Group	HbA1c in %
Non diabetic adults >=18 years	<5.7
At risk (Prediabetes)	5.7 – 6.4
Diagnosing Diabetes	>=6.5

#### Note:

- 1, Since HbA1c reflects long term fluctuation in the blood glucose concentration , a diabetic patient who is recently under good control may still have a high concentration of HbA1c . Converse is true for a diabetic previously under good control but now proply controlled.
- 2, Target goals of <7.0% may be beneficial in patients with short duration of diabetes , long life expectancy and no significant cardiovascular disease. In patients with significant complications of diabetes ,limit life expectancy or extensive co-morbid conditions, targeting a goal of <7.0 % may not be appropriate.

#### Comment :

HbA1c provides an index of average blood glucose levels over the past 8 – 12 weeks and is a much better indicator of long term glycemic control as compared to blood and urinary glucose determinations.

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### DEPARTMENT OF HAEMATOLOGY

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**Bio-Rad CDM System  
VII TURBO #1. SN-16477**

**PATIENT REPORT  
V2TURBO\_A1c\_2.0**

**Patient Data**

Sample ID: C6255867  
Patient ID:  
Name:  
Physician:  
Sex:  
DOB:

**Analysis Data**

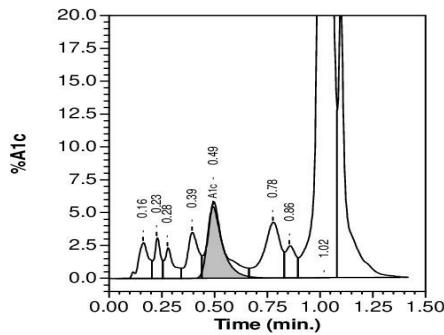
Analysis Performed: 01/14/2026 17:16:54  
Injection Number: 5516  
Run Number: 70  
Rack ID:  
Tube Number: 7  
Report Generated: 01/14/2026 17:18:26  
Operator ID:

Comments:

Peak Name	NGSP %	Area %	Retention Time (min)	Peak Area
A1a	---	1.5	0.160	20077
A1b	---	1.0	0.226	13999
F	---	1.1	0.277	14743
LA1c	---	2.0	0.394	27598
A1c	5.4	---	0.493	60353
P3	---	3.7	0.776	50791
P4	---	1.3	0.856	17533
Ao	---	85.0	1.021	1158259

Total Area: 1,363,353

HbA1c (NGSP) = 5.4 %



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UHID/MR No	: ADEL.0003975894	Report Date	: 14/Jan/2026 04:48PM
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### DEPARTMENT OF HAEMATOLOGY

#### CRL SWASTHYA CARE

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<b>COMPLETE BLOOD COUNT(CBC)23</b>				
R.B.C	4.59	Millions/cumm	4.5-5.5	Impedance variation
<b>Haemoglobin</b>	13.1	g/dl	12.0-15.0	Spectrophotometry
Packed Cell Volume	<b>39.90</b>	%	40.0-50.0	Analogical Integration
MCV	86.93	fL	80-100	
MCH	28.54	pg	27.0-32.0	Calculated
MCHC	32.83	g/dL	27.0-48.0	Calculated
RDW-CV	13.6	%	11.5-14.0	Calculated
<b>Platelet Count</b>	377	x1000/uL	150-450	Impedance Variation
<b>Total WBC Count</b>	8200	/cumm	4000-10000	Impedance Variation
TNC	8.20			
MPV	<b>8.80</b>	%	9.1-11.9	Calculated
PCT	0.33	%	0.18-0.39	Calculated
PDW	<b>16.60</b>	%	9.0-15.0	Calculated
<b>Differential Leucocyte Count</b>				
Neutrophil	60	%	40.0-80.0	flow cytometry/manual
Lymphocyte	30	%	20.0-40.0	flow cytometry/manual
Monocytes	09	%	2-10	flow cytometry/manual
Eosinophils	01	%	01-06	Flow cytometry/manual
Basophils	00	%	0-2	Flow cytometry/manual
Absolute Neutrophils	4.92	1000/uL	2.00-7.00	
Absolute Lymphocytes	2.46	1000/µL	1.00-3.00	
Absolute Monocytes	0.74	1000/µL	0.20-1.00	
Absolute Eosinophils	0.08	1000/µL	0.02-0.50	
Neutrophil-Lymphocyte Ratio	2.00			Calculated
Lymphocyte-Monocyte Ratio	3			Calculated
Platelet-Lymphocyte Ratio	13			Calculated

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### DEPARTMENT OF HAEMATOLOGY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
Erythrocyte Sedimentation Rate (ESR)	16	mm/h	0-20	Westergren

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### DEPARTMENT OF BIOCHEMISTRY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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#### GLUCOSE FASTING

Sample Type : Sod.Fluoride - F

Glucose Fasting	88.4	mg/dl	70.0 - 110.0	GOD-POD
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#### Interpretation (In accordance with the American diabetes association guidelines):

- A fasting plasma glucose level below 110 mg/dL is considered normal.
- A fasting plasma glucose level between 100-126 mg/dL is considered as glucose intolerant or pre diabetic. A fasting and post-prandial blood sugar test (after consumption of 75 gm of glucose) is recommended for all such patients.
- A fasting plasma glucose level of above 126 mg/dL is highly suggestive of a diabetic state. A repeat fasting test is strongly recommended for all such patients. A fasting plasma glucose level in excess of 126 mg/dL on both the occasions is confirmatory of a diabetic state.

#### EGFR (ESTIMATED GLOMERULAR FILTRATION RATE)

Creatinine	0.61	mg/dL	0.60-1.20	Jaffe Kinetic
Blood Urea Nitrogen (BUN)	14.08	mg/dL	6-20	spectrophotometry
Albumin (Serum)	4.81	g/dL	3.5-5.5	Bromo Cresol Green (BCG)
EGFR By MDRD	118.15	mL/min/1.73 m <sup>2</sup>		Spectrophotometric - Calculated

**COMMENT-**The Kidney Disease Improving Global Outcomes (KDIGO) guideline defines CKD by the presence of glomerular filtration rate (GFR) <60 mL/min/1.73m<sup>2</sup> for >3 months and/or evidence of kidney damage (eg, structural abnormalities, histologic abnormalities, albuminuria, urinary sediment abnormalities, renal tubular disorders, and/or history of kidney transplantation) for >3months.<sup>2</sup> Thus, monitoring should include tests for GFR, albuminuria, and urine sediment.

#### CLINICAL USE-

- Detect chronic kidney disease (CKD) in adults.
- Monitor CKD therapy and/or progression in adults.

#### Interpretation of eGFR Values

eGFR (mL/min/1.73m <sup>2</sup> )	Interpretation
90	Normal
60-89	Mild decrease
45-59	Mild to moderate decrease
30-44	Moderate to severe decrease
15-29	Severe decrease
<15	Kidney failure

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## DEPARTMENT OF BIOCHEMISTRY

## CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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LIVER FUNCTION TEST (LFT)-EXTENDED				
Sample Type : SERUM				
Bilirubin Total	0.94	mg/dl	<1.1	Diazotized Sulfanilic
Bilirubin Direct	0.25	mg/dl	0-0.3	Diazotized Sulfanilic
Bilirubin Indirect	0.69	mg/dl	0.30-1.00	Calculated
SGOT (AST)	35.3	U/L	<31.0	IFCC without pyridoxal phosphate
SGPT (ALT)	39.0	U/L	<33.0	IFCC without pyridoxal phosphate
Alkaline Phosphatase (ALP)	135.7	U/L	35-104	Spectrophotometry
Gamma Glutamyl Transferase (GGT)	12.9	U/L	05-40	L-Gamma-glutamyl-3-carboxy-4-nitroanilide Substrate
Protein Total	7.4	g/dL	6.6-8.7	Biuret
Albumin (Serum)	4.81	g/dL	3.5-5.5	Bromo Cresol Green (BCG)
Globulin	2.59	g/dL	2.50-3.50	Calculated
A/G Ratio	1.86		1.5-2.5	Calculated

**Interpretation:-** Liver blood tests, or liver function tests, are used to detect and diagnose disease or inflammation of the liver. Elevated aminotransferase (ALT, AST) levels are measured as well as alkaline phosphatase, albumin, and bilirubin. Some diseases that cause abnormal levels of ALT and AST include hepatitis A, B, and C, cirrhosis, iron overload, and Tylenol liver damage. Medications also cause elevated liver enzymes. There are less common conditions and diseases that also cause elevated liver enzyme levels.: Liver blood tests, or liver function tests, are used to detect and diagnose disease or inflammation of the liver. Elevated aminotransferase (ALT, AST) levels are measured as well as alkaline phosphatase, albumin, and bilirubin. Some diseases that cause abnormal levels of ALT and AST include hepatitis A, B, and C, cirrhosis, iron overload, and Tylenol liver damage. Medications also cause elevated liver enzymes. There are less common conditions and diseases that also cause elevated liver enzyme levels.

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### DEPARTMENT OF BIOCHEMISTRY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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#### LIPID PROFILE BASIC

Sample Type : SERUM

Total Cholesterol	177.1	mg/dL	Desirable - 200, Borderline high - 200-239, High - ≥ 240	CHO-POD
Triglyceride	98.9	mg/dL	0.0-150 :Normal 151-199:Border Line >=200 :High 200.0-499.0 High -> 500 Very High	GPO-POD
HDL Cholesterol	44.7	mg/dL	40-60	Direct (PVS/PEGME precipitation & Trinder reaction)
Non HDL Cholesterol	<b>132.40</b>	mg/dL	< 130 mg/dL	Calculated
VLDL Cholesterol	19.8	mg/dL	2.00-30.00	Calculated
LDL Cholesterol	112.62	mg/dL	0-130 :Normal~131-155:Borderline~>=160 :High	Direct (PVS/PEGME precipitation & Trinder reaction)
Cholesterol/HDL Ratio	3.96	Ratio	<4.00	Calculated
LDL / HDL Cholestrol Ratio	2.52	Ratio	<3.50	Calculated
HDL/LDL Cholesterol Ratio	0.40	Ratio	<3.50	Calculated

Cholesterol Level	mg/dL
Desirable	200
Borderline High	200 - 239
High	≥ 240

#### Risk Modifiers As per ASCVD

PARAMETRS	mg/dL
HDL	<40 - low
	>60 - high
LDL	<100 optimal
TRIGLYCERIDE LEVELS	< 150 for fasting < 175 for Non fasting

#### Treatments Goal as per LAI 2023

ASCVD RISK CATEGORY	TREATMENT GOAL	
	LDL-C in mg/dL Primary Target	NonHDL-C in mg/dL CO-Primary Target
LOW	<100	<130
MODERATE	<100	<130
HIGH	<70	<100
VERY HIGH	<50	<80
EXTREME (A)	<50 or <30	<80 or <60
EXTREME (B)	<30	<60

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## DEPARTMENT OF BIOCHEMISTRY

## CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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IRON PROFILE BASIC				
Iron, Serum	64	ug/dL	59-158	Colorimetric
Total Iron Binding Capacity-(TIBC)	327	ug/dL	250-400	Spectro-photometry
UIBC-SERUM	263.00	ug/dL	110-370	Direct Determination with Ferrozinc
Transferrin Saturation	19.57	%	16-50	Calculated

**Total iron-binding capacity**

The test measures the extent to which iron-binding sites in the serum can be saturated. Because the iron-binding sites in the serum are almost entirely dependent on circulating transferrin, this is really an indirect measurement of the amount of transferrin in the blood.

Taken together with serum iron and percent transferrin saturation clinicians usually perform this test when they are concerned about anemia, iron deficiency or iron deficiency anemia. However, because the liver produces transferrin, liver function must be considered when performing this test. It can also be an indirect test of liver function, but is rarely used for this purpose

**Transferrin Saturation**

1g of transferrin can carry 1.43g of iron. Normally, iron saturation of transferrin (transferrin saturation) is between 10% and 50%. Because of its short half-life, transferrin values decrease more quickly in protein malnutrition states and should be taken into consideration while evaluating iron-deficiency states

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### DEPARTMENT OF BIOCHEMISTRY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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<b>Kidney Function Test EXTENDED</b>				
Urea	30.13	mg/dL	18.0-45.0	Urease UV
Creatinine	0.61	mg/dL	0.60-1.20	Jaffe Kinetic
Calcium	9.0	mg/dL	8.6-10.2	NM-BAPTA
Uric Acid	3.03	mg/dl	2.30-6.60	Spectro-photometry
Phosphorus	2.7	mg/dL	2.50-5.00	Ammonium molybdate UV
Sodium (NA+)	140.00	mmol/L	135.0-145.0	Ion Selective Electrode
Potassium (K+)	4.46	mmol/L	3.50-5.50	Ion Selective Electrode
Chloride	103.00	mmol/L	98.0-109.0	Ion Selective Electrode
Blood Urea Nitrogen (BUN)	14.08	mg/dL	6-20	spectrophotometry
Bun / Creatinine Ratio	<b>23.08</b>	Ratio	0.0-23.0	Calculated
Urea / Creatinine Ratio	<b>49.39</b>	Ratio	20-35	Calculated

**Interpretation:-** Kidney blood tests, or Kidney function tests, are used to detect and diagnose disease of the Kidney.

The higher the blood levels of urea and creatinine, the less well the kidneys are working.

The level of creatinine is usually used as a marker as to the severity of kidney failure. (Creatinine in itself is not harmful, but a high level indicates that the kidneys are not working properly. So, many other waste products will not be cleared out of the bloodstream.) You normally need treatment with dialysis if the level of creatinine goes higher than a certain value.

Dehydration can also be a cause for increases in urea level.

Before and after starting treatment with certain medicines. Some medicines occasionally cause kidney damage (Nephrotoxic Drug) as a side-effect. Therefore, kidney function is often checked before and after starting treatment with certain medicines.

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### DEPARTMENT OF IMMUNOASSAY

#### CRL SWASTHYA CARE

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#### THYROID PROFILE

Sample Type : SERUM

Triiodothyronine Total (T3)	1.24	ng/mL	0.70-2.04	Chemiluminescence Immunoassay (CLIA)
Thyroxine Total (T4)	8.90	ug/dL	4.6-10.5	Chemiluminescence Immunoassay (CLIA)
TSH (4th Generation)	2.331	uIU/mL	0.40-4.20	Chemiluminescence Immunoassay (CLIA)

PREGNANCY	REFERENCE RANGE for TSH IN uIU/mL (As per American Thyroid Association.)
1st Trimester	0.10-2.50 uIU/mL
2nd Trimester	0.20-3.00 uIU/mL
3rd Trimester	0.30-3.00 uIU/mL

#### INTERPRETATION-

- Primary hyperthyroidism is accompanied by elevated serum T3 & T4 values along with depressed TSH level.
- Primary hypothyroidism is accompanied by depressed serum T3 and T4 values & elevated serum TSH levels.
- Normal T4 levels accompanied by high T3 levels and low TSH are seen in patients with T3 thyrotoxicosis.
- Normal or low T3 & high T4 levels indicate T4 thyrotoxicosis ( problem is conversion of T4 to T3)
- Normal T3 & T4 along with low TSH indicate mild / subclinical HYPERTHYROIDISM .
- Normal T3 & low T4 along with high TSH is seen in HYPOTHYROIDISM .
- Normal T3 & T4 levels with high TSH indicate Mild / Subclinical HYPOTHYROIDISM .
- Slightly elevated T3 levels may be found in pregnancy and in estrogen therapy while depressed levels may be encountered in severe illness , malnutrition , renal failure and during therapy with drugs like propanolol.
- Although elevated TSH levels are nearly always indicative of primary hypothyroidism . rarely they can result from TSH secreting pituitary tumours ( second day hyperthyroidism )

\*TSH IS DONE BY ULTRASENSITIVE 4th GENERATION CHEMIFLEX ASSAY\*

#### COMMENTS:

Assay results should be interpreted in context to the clinical condition and associated results of other investigations. Previous treatment with corticosteroid therapy may result in lower TSH levels while thyroid hormone levels are normal. Note:

TSH levels may fluctuate based on few factors such as pregnancy, illness and age. Also, time of sample collection, technologies used to analyze the test, usage of certain drugs. Diet may have impact on TSH levels. TSH may show around 50% variation even when done at different times of day due to its association with circadian rhythm.

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LAB HEAD  
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MC-7078

<b>Patient Name</b>	: Ms. NEHA	Specimen Drawn ON	: 14/Jan/2026 10:00AM
Age/Gender	: 36 YRS /F	Specimen Received ON	: 14/Jan/2026 04:35PM
UHID/MR No	: ADEL.0003975894	Report Date	: 14/Jan/2026 05:27PM
<b>Barcode No</b>	<b>: C6255865</b>	Client Code	: DL1360
Ref Doctor	: Dr.MANGLA PRAVEEN	Visit ID	: MDEL3978898
Ref Customer	: SELF	Client Name	: AVERT LABORATORIES

## **DEPARTMENT OF IMMUNOASSAY**

Test Name	Result	Unit	Bio. Ref. Range	Method
Prolactin	8.72	ng/ml	<50 years : 3.34-26.72 ~ ≥50 years: 2.74-19.64	Chemiluminescence Immunoassay (CLIA)

### Reference range in

Pregnancy, 3rd trimester -95.00 - 473.00 ng/ml  
Post Menopausal 1.80 – 20.30 ng/ml

#### **Comments:**

- Comments:**

  1. Since prolactin is secreted in a pulsatile manner and is also influenced by a variety of physiologic stimuli, it is recommended to test 3 specimens at 20-30 minute intervals after pooling.
  2. Major circulating form of Prolactin is a nonglycosylated monomer, but several forms of Prolactin linked with immunoglobulin occur which can give falsely high Prolactin results.
  3. Macroprolactin assay is recommended if prolactin levels are elevated, but signs and symptoms of hyperprolactinemia are absent or pituitary imaging studies are normal

### Clinical Use

- Diagnosis & management of pituitary adenomas
  - Differential diagnosis of male & female hypogonadism

### **Increased Levels**

Physiologic: Sleep, stress, postprandially, pain, coitus

**Systemic disorders:** Chest wall or thoracic spinal cord lesions, Primary / Secondary hypothyroidism, Adrenal insufficiency, Chronic renal failure, Cirrhosis

Medications: Psychiatric medications like Phenothiazine, Haloperidol.

medications. Psychotic medications like Phenothiazines, Haloperidol, Risperidone, Domperidone, Fluoxetine, Amitriptyline, MAO inhibitors etc.,

**Antihypertensives: Alphamethylldopa, Reserpine, Verapamil, Opiates: Heroin, Methadone, Morphine,**

#### **Apomorphine,Cimetidine / Ranitidine**

## Prolactin secreting pituitary tumors: Prolactinoma, Acromegaly

Miscellaneous: Epileptic seizures, Ectopic secretion of prolactin by non-pituitary tumors, pressure / transaction of pituitary stalk, macroprolactinemia

Idiopathic

### Decreased levels

- Pituitary deficiency: Pituitary necrosis / infarction
  - Bromocriptine administration
  - Pseudohypoparathyroidism

This report has been validated by:

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### DEPARTMENT OF IMMUNOASSAY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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#### VITAMIN B12

Sample Type : SERUM

Vitamin B12 Level	161.0	pg/mL	211-911	Chemiluminescence Immunoassay(CLIA)
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#### Comments

Vitamin B<sub>12</sub> along with folate is essential for DNA synthesis and myelin formation. Vitamin B<sub>12</sub> deficiency can be because of nutritional deficiency, malabsorption and other gastrointestinal causes. The test is ordered primarily to help diagnose the cause of macrocytic/ megaloblastic anemia.

#### Decreased levels are seen in:

anaemia, normal near term pregnancy, vegetarianism, partial gastrectomy/ ileal damage, celiac disease, with oral contraceptive use, parasitic competition, pancreatic deficiency, treated epilepsy, smoking, hemodialysis and advancing age

#### Increased levels are seen in:

renal failure, hepatocellular disorders, myeloproliferative disorders and at times with excess supplementation of vitamins pills

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### DEPARTMENT OF IMMUNOASSAY

#### CRL SWASTHYA CARE

Test Name	Result	Unit	Bio. Ref. Range	Method
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VITAMIN D3 25-HYDROXY				
Sample Type : SERUM				
Vitamin D, 25 Hydroxy	7.73	ng/mL	Deficiency:<20 Sufficiency:20-65 Intoxication:>70	Enhanced Chemiluminescence (Ultre Sensitive 4th Generation Chemiflex)

Lower-than-normal levels suggest a vitamin D deficiency. This condition can result from Lack of exposure to sunlight,Lack of adequate vitamin D in the diet, Liver and kidney diseases and Malabsorption. A vitamin D deficiency may lead to: \*Low blood calcium levels (hypocalcaemia) \*Thin or weak bones (rickets, osteoporosis and osteomalacia) \*High levels of parathyroid hormone (secondary hyperparathyroidism) Total 25-hydroxyvitamin D (D2 + D3) is the correct measure of Vitamin D status.Higher-than-normal levels suggest excess vitamin D, a condition called hypervitaminosis D. It is usually caused by vitamin D in the form of doctor-prescribed dietary supplements. 95% of serum vitamin D is Vit D3. D2 is only received from supplements.

\*\*\* End Of Report \*\*\*

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